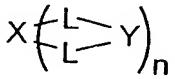
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

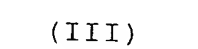
LISTING OF CLAIMS:

Claim 1. (Original) A prodrug of the general Formula (I), (II) or (III):

(I)



(II)



(III)

in which

X is a tobramycin moiety;

X' is a pharmaceutically active moiety;

L is a linker group;

Y is a pharmacokinetic regulator; and

n is an integer of 1 or greater

or a pharmaceutically acceptable derivative or salt thereof.

Claim 2. (Currently Amended) A prodrug according to claim 1, ~~in which~~ wherein the pharmaceutically active moiety is selected from the group consisting of an aminoglycoside, nucleoside, rhinovirus capsid-binding compound, antisense oligonucleotide, peptide, an inhibitor of HIVRT, an inhibitor of

influenza neuraminidase, amphotericin β, an azole and an aspartic proteinase.

Claim 3. (Currently Amended) A prodrug according to claim 2, ~~in which~~ wherein the aminoglycoside is selected from the group consisting of tobramycin, kanamycin A to C, amikacin, neomycin, streptomycin, neamine, paromomycin, lividomycin, 2230-C, ribostamycin, xyllostasin, butirosin, 4'-deoxybutyrosin, LL-BM408a, gentamycins and nebramycin.

Claim 4. (Currently Amended) A prodrug according to claim 3, ~~in which~~ wherein the aminoglycoside is selected from the group consisting of tobramycin, amikacin, neomycin ~~or~~and kanamycin.

Claim 5. (Currently Amended) A prodrug according to claim 3 or claim 4, ~~in which~~ wherein the aminoglycoside is tobramycin.

Claim 6. (Currently Amended) A prodrug according to ~~any one of~~ claim~~s~~ 1, ~~to 5 in which~~ wherein the linker group is selected from the group consisting of esters, amides, ureas, thioureas, imines, acetals, ethers, phosphates, phosphate esters or diesters, thioesters, oximes and hydrazones.

Claim 7. (Currently Amended) A prodrug according to claim 6, ~~in which~~ wherein the linker group is selected from the group consisting of an ester, amide, oxime and phosphate.

Claim 8. (Currently Amended) A prodrug according ~~to any one of~~ claim~~s~~ 2, ~~to 7, in which~~ wherein the linker group is an ester.

Claim 9. (Currently Amended) A prodrug according to ~~any one of the preceding~~ claim~~s~~ 1, ~~in which~~ wherein the pharmacokinetic regulator Y is a hydrophobic or hydrophilic moiety.

Claim 10. (Currently Amended) A prodrug according to claim 9, ~~in which~~ wherein the hydrophobic moiety is an optionally substituted straight chain, branched and/or cyclic saturated or unsaturated hydrocarbon.

Claim 11. (Currently Amended) A prodrug according to claim 10, ~~in which~~ wherein the hydrophobic moiety is an optionally substituted alkyl or optionally substituted alkenyl having 1 to 24 carbon atoms which is optionally interrupted with oxygen or nitrogen; an optionally substituted aryl; or an optionally substituted heterocyclyl.

Claim 12. (Currently Amended) A prodrug according to claim 11, ~~in which~~ wherein the optionally substituted alkyl or the optionally substituted alkenyl is an optionally substituted C_{1-20} alkyl or optionally substituted C_{2-20} alkenyl which is optionally interrupted with O, C=O, NH, optionally substituted aryl or optionally substituted heterocyclyl and optionally substituted with carboxyl, optionally substituted C_{1-6} alkyl, amino or hydroxyl.

Claim 13. (Currently Amended) A prodrug according to claim 11, ~~in which~~ wherein the optionally substituted aryl is an optionally substituted phenyl or optionally substituted biphenyl.

Claim 14. (Currently Amended) A prodrug according to claim 11, ~~in which~~ wherein the optionally substituted heterocyclyl is a 5- or 6-membered nitrogen containing heterocyclic group.

Claim 15. (Currently Amended) A prodrug according to claim 14, ~~in which~~ wherein the heterocyclic group is selected from the group consisting of pyridyl, indolyl, indazolyl, 2,3-dihydro-1H-indolyl, furanyl, isoxazolyl, pyrazolyl and thiofuranyl.

Claim 16. (Currently Amended) A prodrug according to ~~any one of~~ claim~~s~~ ~~13 to 15~~, ~~in which~~ wherein the optional substituents on the phenyl or heterocyclyl are selected from the group consisting of halo, C_{1-4} alkyl, C_{1-4} alkoxy, hydroxy and OCF_3.

Claim 17. (Currently Amended) A prodrug according to claim 9, ~~in which~~ wherein the hydrophilic moiety is selected from the group consisting of oligonucleotides up to 20 nucleotides in length, peptides up to 20 amino acids in length, peptide mimics, carbohydrates, oligosaccharides and derivatives thereof.

Claim 18. (Currently Amended) A method for the preparation of the prodrug of Claim 1 ~~as defined in any one of claims 1 to17, which~~ comprisinge~~s~~ the steps of:

(a) optionally protecting the moieties X and/or X' and/or the linker group which is attached to the optionally protected pharmacokinetic regulator Y;

(b) reacting the optionally protected moieties X and/or X' and the optionally protected linker group L attached to the optionally protected pharmacokinetic regulator Y; and

(c) if necessary, removing the protecting groups of the moieties X and/or X', the linker L and the pharmacokinetic regulator Y.

Claim 19. (Currently Amended) A pharmaceutical formulation comprising the prodrug ~~as defined in any one~~ of claim~~s~~ 1~~ to 17~~ or a pharmaceutically acceptable salt or derivative thereof, together with one or more pharmaceutically acceptable carriers.

Claim 20. (Currently Amended) A pharmaceutical formulation according to claim 19, which further comprises one or more other therapeutic and/or prophylactic ingredients.

Claim 21. (Currently Amended) A pharmaceutical formulation according to claim 20, ~~in which~~ wherein the other therapeutic and/or prophylactic ingredient~~s~~ is an antimicrobial or antiinfective agent.

Claim 22. (Currently Amended) A pharmaceutical formulation according to claim 21, ~~in which~~ wherein the antiinfective agent is an antibacterial agent.

Claim 23. (Currently Amended) A pharmaceutical formulation according to claim 22, ~~in which~~ wherein the antibacterial agent is ~~used~~ effective to treat respiratory infections.

Claim 24. (Currently Amended) A pharmaceutical formulation according to claim 22 ~~or claim23~~, ~~in which~~ wherein the antibacterial agent is a combination selected from the group consisting of trimethoprim and sulfonamide; bacitracin and polymyxin B-neomycin; imipenem and fluoroquinolone; and beta-Iactam and aminoglycosides.

Claim 25. (Currently Amended) An inhaler which comprises a prodrug ~~as defined in any one~~ of claim~~s~~ 1 ~~to 17 or a formulation as defined in any one of claims 19 to24~~.

Claim 26. (Currently Amended) An inhaler according to claim 25, ~~which is~~ wherein said inhaler is adapted for oral administration as a free-flow powder.

Claim 27. (Currently Amended) An inhaler according to claim 25, wherein said inhaler ~~which~~ is a metered dose aerosol inhaler.

Claim 28. (Currently Amended) A method for the prevention and/or treatment of a microbial infection comprising the step of administration to a subject in need thereof of an effective amount of the prodrug ~~as defined in any one~~ of claim~~s~~ 1 ~~to 17 or a formulation as defined in any one of claims 19 to24~~.

Claim 29. (Currently Amended) A method according to claim 28, ~~in which~~ wherein the microbial infection is a bacterial infection.

Claim 30. (Currently Amended) A method according to claim 29, ~~in which~~ wherein the infection is a Gram Negative or Gram Positive infection.

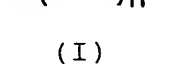
Claim 31. (Currently Amended) A method according to claim 30, ~~in which~~ wherein the bacterial infection is associated with the respiratory tract, urinary tract or GI tract or a systemic infection caused by enteric bacteria.

Claim 32. (Currently Amended) A method according to ~~any one of~~ claim~~s~~ 28~~ to 31 in which~~, wherein the administration is to the respiratory tract by inhalation, insufflation or intranasally or a combination thereof.

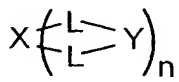
Claims 33-36. (Cancelled).

Claim 37. (Currently Amended) A method for the detection of a microbial infection which comprises the step of contacting the prodrug ~~as defined in any one~~ of claim~~s~~ 1~~ to 17 or the formulation as defined in any one of claims 19 to 24~~ with a sample suspected of containing the microorganism.

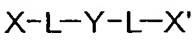
Claim 38. (Original) A prodrug of general Formula (I), (II) or (III):



(I)



(II)



(III)

in which

X and X' are either the same or different and selected from an aminoglycoside excluding tobramycin;

L is a linker group excluding amide and carbamate;

Y is a pharmacokinetic regulator; and

n is an integer of 1 or greater

or a pharmaceutically acceptable derivative or salt thereof.

Claim 39. (Currently Amended) A prodrug according to claim 38, ~~in which~~wherein the aminoglycoside X is selected from the group consisting of kanamycin A to C, amikacin, neomycin, streptomycin, neamine, paromomycin, lividomycin, 2230-C, ribostamycin, xyllostasin, butirosin, 4'-deoxybutyrosin, LL-BM408a, gentamycins and nebramycin.

Claim 40. (Currently Amended) A prodrug according to claim 39, ~~in which~~wherein the aminoglycoside is selected from the group consisting of amikacin, neomycin ~~or~~ and kanamycin.

Claim 41. (Currently Amended) A prodrug according to ~~any one of claims~~claim 38~~ to 40~~, ~~in which~~wherein the linker group is selected from the group consisting of esters, ureas, thioureas, imines, acetals, ethers, phosphates, phosphate esters or diesters, thioesters, oximes and hydrazones.

Claim 42. (Currently Amended) A prodrug according to claim 41, ~~in which~~wherein the linker group is selected from the group consisting of an ester, oxime and phosphate.

Claim 43. (Currently Amended) A prodrug according to claim 41~~ or claim 42~~, ~~in which~~wherein the linker group is an ester.

Claim 44. (Currently Amended) A prodrug according to ~~any one of claims~~claim 38~~ to 43~~, ~~in which~~wherein the pharmacokinetic regulator is a hydrophobic or hydrophilic moiety.

Claim 45. (Currently Amended) A prodrug according to claim 44, ~~in which~~wherein the hydrophobic moiety is an optionally substituted straight chain, branched and/or cyclic saturated or unsaturated hydrocarbon.

Claim 46. (Currently Amended) A prodrug according to claim 45, ~~in which~~wherein the hydrophobic moiety is an optionally substituted alkyl optionally substituted alkenyl having 1 to 24 carbon atoms which is optionally interrupted with oxygen or nitrogen; an optionally substituted aryl; or an optionally substituted heterocyclyl.

Claim 47. (Currently Amended) A prodrug according to claim 46, ~~in which~~wherein the optionally substituted alkyl or optionally substituted alkenyl is an optionally substituted C_{1-20} alkyl or optionally substituted C_{2-20} alkenyl which is optionally interrupted with O, C=O, NH, optionally sub$tituted aryl or optionally substituted heterocyclyl and optionally substituted with carboxyl, optionally substituted C_{1-6} alkyl, amino or hydroxyl.

Claim 48. (Currently Amended) A prodrug according to claim 46, ~~in which~~wherein the optionally substituted aryl is an optionally substituted phenyl or optionally substituted biphenyl.

Claim 49. (Currently Amended) A prodrug according to claim 46, ~~in which~~wherein the optionally substituted heterocyclyl is a 5- or 6-membered nitrogen containing heterocyclic group.

Claim 50. (Currently Amended) A prodrug according to claim 49, ~~in which~~wherein the heterocyclic group is selected from the group consisting of pyridyl, indolyl, indazolyl, 2,3-dihydro-1H-indolyl, furanyl, isoxazolyl, pyrazolyl and thiofuranyl.

Claim 51. (Currently Amended) A prodrug according to ~~any one of claims~~claim 48 ~~to 50~~, ~~in which~~wherein the optional substituents on the phenyl or heterocyclyl are selected from the group consisting of halo, C_{1-4} alkyl, C_{1-4} alkoxy, hydroxy and OCF_3.

Claim 52. (Currently Amended) A prodrug according to claim 44, ~~in which~~wherein the hydrophilic moiety is selected from the group consisting of oligonucleotides up to 20 nucleotides in length, peptides up to 20 amino acids in length, peptide mimics carbohydrates, oligosaccharides and derivatives thereof.

Claim 53. (Currently Amended) A method for the preparation of the prodrug ~~as defined in any one of claims~~of claim 38 ~~to 51, which comprises~~ comprising the steps of:

(a) optionally protecting the moieties X and/or X' and/or the linker group which is attached to the optionally protected pharmacokinetic regulator Y;

(b) reacting the optionally protected moieties X and/or X' and the optionally protected linker group L attached to the optionally protected pharmacokinetic regulator Y; and

(c) if necessary, removing the protecting groups of the moieties X and/or X' the linker L and the pharmacokinetic regulator Y.

Claim 54. (Currently Amended) A pharmaceutical formulation comprising the prodrug ~~as defined in any one~~ of ~~claims~~ claim 38 ~~to 52~~ or a pharmaceutically acceptable salt or derivative thereof, together with one or more pharmaceutically acceptable carriers.

Claim 55. (Original) A pharmaceutical formulation according to claim 54, which further comprises one or more other therapeutic and/or prophylactic ingredients.

Claim 56. (Currently Amended) A pharmaceutical formulation according to claim 55, ~~in which~~ wherein the other therapeutic and/or prophylactic ~~ingredient~~ ingredients is an antimicrobial or antiinfective agent.

Claim 57. (Currently Amended) A pharmaceutical formulation according to claim 56, ~~in which~~wherein the antiinfective agent is an antibacterial agent.

Claim 58. (Currently Amended) A pharmaceutical formulation according to claim 57, ~~in which~~wherein the antibacterial agent is ~~used~~ effective to treat respiratory infections.

Claim 59. (Currently Amended) A pharmaceutical formulation according to claim 57~~ or claim 58~~, ~~in which~~wherein the antibacterial agent is a combination selected from the group consisting of trimethoprim and sulfonamide; bacitracin and polymyxin B-neomycin; imipenem and fluoroquinolone; and beta-lactam and aminoglycosides.

Claim 60. (Currently Amended) An inhaler which comprises a prodrug ~~as defined in any one~~ of ~~claims~~ claim 38~~ to 52 or a formulation as defined in any one of claims 54 to 59~~.

Claim 61. (Currently Amended) An inhaler according to claim 60, ~~which is~~wherein said inhaler is adapted for oral administration as a free-flow powder.

Claim 62. (Currently Amended) An inhaler according to claim 60~~ which~~, wherein said inhaler is a metered dose aerosol inhaler.

Claim 63. (Currently Amended) A method for the prevention and/or treatment of a microbial infection comprising the step of administration to a subject in need thereof of an effective amount of the prodrug ~~as defined in any one~~ of ~~claims~~ claim 38 ~~to 52 or a formulation as defined in any one of claims 54 to 59~~.

Claim 64. (Currently Amended) A method according to claim 63, ~~in which~~wherein the microbial infection is a bacterial infection.

Claim 65. (Currently Amended) A method according to claim 64, ~~in which~~wherein the bacterial infection is a Gram Negative or Gram Positive infection.

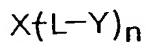
Claim 66. (Currently Amended) A method according to claim 65, ~~in which~~wherein the bacterial infection is associated with the respiratory tract, urinary tract or GI tract or a systemic infection caused by enteric bacteria.

Claim 67. (Currently Amended) A method according to ~~any one of claims~~claim 63 ~~to 66 in which~~ wherein the administration is to the respiratory tract by inhalation, insufflation or intranasally or a combination thereof.

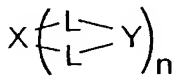
Claims 68-71. (Cancelled).

Claim 72. (Currently Amended) A method for the detection of a microbial infection which comprises the step of contacting the prodrug ~~as defined in any one of claims~~ claim 38 ~~to 51 or the formulation as defined in any one of claims 54 to 59~~ with a sample suspected of containing the microorganism.

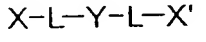
Claim 73. (Original) A prodrug of the general Formula (I), (II) or (III):



(I)



(II)



(III)

in which

X and X' are either the same or different and selected from a nucleoside, rhinovirus capsid-binding compound, antisense oligonucleotide, peptide, an inhibitor of HIVRT, an inhibitor of influenza neuraminidase amphotericin β, an azole and an aspartic proteinase;

L is a linker group;

Y is a pharmacokinetic regulator; and

n is an integer of 1 or greater

or a pharmaceutically acceptable derivative or salt thereof.

Claim 74. (Currently Amended) A prodrug according to claim 73, ~~in which~~wherein the linker group is selected from the group consisting of esters, amides, ureas, thioureas, imines, acetals, ethers, phosphates, phosphate esters or diesters, thioesters, oximes and hydra zones.

Claim 75. (Currently Amended) A prodrug according to claim 74, ~~in which~~wherein the linker group is selected from the group consisting of an ester, amide, oxime and phosphate.

Claim 76. (Currently Amended) A prodrug according to claim 74~~ or claim 75~~, ~~in which~~wherein the linker group is an ester.

Claim 77. (Currently Amended) A prodrug according to ~~any one of claims~~claim 73~~ to 76~~, ~~in which~~wherein the pharmacokinetic regulator is a hydrophobic or hydrophilic moiety.

Claim 78. (Currently Amended) A prodrug according to claim 77, ~~in which~~wherein the hydrophobic moiety is an optionally substituted straight chain, branched and/or cyclic saturated or unsaturated hydrocarbon.

Claim 79. (Currently Amended) A prodrug according to claim 78, ~~in which~~wherein the hydrophobic moiety is an optionally substituted alkyl or optionally substituted alkenyl having 1 to 24 carbon atoms which is optionally interrupted with oxygen or nitrogen; an optionally substituted aryl; or an optionally substituted heterocyclyl.

Claim 80. (Currently Amended) A prodrug according to claim 79, ~~in which~~wherein the optionally substituted alkyl or the optionally substituted alkenyl is an optionally substituted C_{1-20} alkyl or optionally substituted C_{2-20} alkenyl which is optionally interrupted with O, C=O, NH, optionally substituted aryl or optionally substituted heterocyclyl and optionally substituted with carboxyl, optionally substituted C_{1-6} alkyl, amino or hydroxyl.

Claim 81. (Currently Amended) A prodrug according to claim 79, ~~in which~~wherein the optionally substituted aryl is an optionally substituted phenyl or optionally substituted biphenyl.

Claim 82. (Currently Amended) A prodrug according to claim 79, ~~in which~~wherein the optionally substituted heterocyclyl is a 5- or 6-membered nitrogen containing heterocyclic group.

Claim 83. (Currently Amended) A prodrug according to claim 82, ~~in which~~wherein the heterocyclic group is selected from the group consisting of pyridyl, indolyl, indazolyl, 2,3-dihydro-1H-indolyl, furanyl, isoxazolyl pyrazolyl and thiofuranyl.

Claim 84. (Currently Amended) A prodrug according to ~~any one of~~ claim~~s~~ 81 ~~to 83~~, ~~in which~~wherein the optional substituents on the phenyl or heterocyclyl are selected from the group consisting of halo, C_{1-4} alkyl, C_{1-4} alkoxy, hydroxy and OCF_3.

Claim 85. (Currently Amended) A prodrug according to claim 77, ~~in which~~wherein the hydrophilic moiety is selected from the group consisting of oligonucleotides up to 20 nucleotides in length, peptides up to 20 amino acids in length, peptide mimics, carbohydrates, oligosaccharides and derivatives thereof.

Claim 86. (Currently Amended) A method for the preparation of the prodrug ~~as defined in any one of claims~~ claim 73 ~~to 85, which comprises~~comprising the steps of:

(a) optionally protecting the moieties X and/or X' and/or the linker group which is attached to the optionally protected pharmacokinetic regulator Y;

(b) reacting the optionally protected moieties X and/or X' and the optionally protected linker group L attached to the optionally protected pharmacokinetic regulator Y; and

(c) if necessary, removing the protecting groups of the moieties X and/or X', the linker L and the pharmacokinetic regulator Y.

Claim 87. (Currently Amended) A pharmaceutical formulation comprising the prodrug ~~as defined in any one of claims~~ claim 73 ~~to 85~~ or a pharmaceutically acceptable salt or derivative thereof, together with one or more pharmaceutically acceptable carriers.

Claim 88. (Original) A pharmaceutical formulation according to claim 87, which further comprises one or more other therapeutic and/or prophylactic ingredients.

Claim 89. (Currently Amended) A pharmaceutical formulation according to claim 88, ~~in which~~wherein the other therapeutic and/or prophylactic ingredients is an antimicrobial or antiinfective agent.

Claim 90. (Currently Amended) A pharmaceutical formulation according to claim 89, ~~in which~~wherein the antiinfective agent is an antibacterial agent.

Claim 91. (Currently Amended) A pharmaceutical formulation according to claim 90, ~~in which~~wherein the antibacterial agent is ~~used~~ effective to treat respiratory infections.

Claim 92. (Currently Amended) A pharmaceutical formulation according to claim 90~~ or claim 91~~, ~~in which~~wherein the antibacterial agent is a combination selected from the group consisting of trimethoprim and sulfonamide; bacitracin and polymyxin B-neomycin; imipenem and fluoroquinolone; and beta-lactam and aminoglycosides.

Claim 93. (Currently Amended) An inhaler which comprises a prodrug ~~as defined in any one of claims~~ claim 73~~ to 85 or a formulation as defined in any one of claims 87 to 92~~.

Claim 94. (Currently Amended) An inhaler according to claim 93, ~~which~~ wherein said inhaler is adapted for oral administration as a free-flow powder.

Claim 95. (Currently Amended) An inhaler according to claim 93, ~~which~~ wherein said inhaler is a metered dose aerosol inhaler.

Claim 96. (Currently Amended) A method for the prevention and/or treatment of a microbial infection comprising the step of administration to a subject in need thereof of an effective amount of the prodrug ~~as defined in any one~~ of ~~claims~~ claim 73 ~~to 85 or a formulation as defined in any one of claims 87 to 92~~.

Claim 97. (Currently Amended) A method according to claim 96, ~~in which~~wherein the microbial infection is a viral, fungal, parasitic, yeast or protozoal infection.

Claim 98. (Currently Amended) A method according to claim 97, ~~in which~~wherein the viral infection is an orthomyxovirus or paramyxovirus infection.

Claim 99. (Currently Amended) A method according to claim 97~~ or claim 98 in which~~, wherein the viral infection is an influenza A or B infection, parainfluenza, mumps or Newcastle disease.

Claim 100. (Currently Amended) A method according to ~~any one of claims~~claim 96~~ to 99 in which~~, wherein the administration is to the respiratory tract by inhalation, insufflation or intranasally or a combination thereof.

Claims 101-104. (Cancelled).

Claim 105. (Currently Amended) A method for the detection of a microbial infection which comprises the step of contacting the prodrug ~~as defined in any one~~ of ~~claims~~ claim 73 ~~to 85 or the formulation as defined in any one of claims 87 to 92~~ with a sample suspected of containing the microorganism.